

WHAT IS CLAIMED IS:

1. A pulse modulator comprising:
a delay arrangement for receiving a first regular
5 sequence of pulses and for delaying each received
pulse several times to obtain a plurality of regular
sequences of pulses having different phases; and
a selection component for receiving from said
delay arrangement a plurality of regular sequences of
10 pulses having different phases, for receiving a
modulating signal, wherein each possible value of
said modulating signal is associated to one of said
different phases, for selecting for each pulse of
said first regular sequence of pulses a pulse of the
15 respective regular sequence of pulses which sequence
of pulses has a phase associated to a current value
of said modulating signal, and for outputting said
selected pulse as part of a pulse position modulated
sequence of pulses.
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2. A pulse modulator according to claim 1, wherein said
selection component is a multiplexer.
3. A pulse modulator according to claim 1, wherein said
25 delay arrangement comprises a shift register.
4. A pulse modulator according to claim 1, wherein said
delay arrangement comprises a synchronization input
for enabling a synchronization of delays applied by
30 said delay arrangement to received pulses by means of
a clock signal applied to said synchronization input.
5. A pulse modulator according to claim 1, further
comprising a pulse generator for generating a regular

sequence of pulses and for providing said generated
regular sequence of pulses as a first regular
sequence of pulses to said delay arrangement and in
addition as a clock signal to said selection
5 component.

6. A pulse modulator according to claim 5, wherein said
pulse generator further provides said generated
regular sequence of pulses as a clock signal to said
10 selection component.

7. A pulse modulator according to claim 5, wherein said
pulse generator generates said pulses with a
frequency which is equal to the frequency with which
15 values of said modulating signal are provided to said
selection component.

8. A pulse modulator according to claim 5, wherein said
pulse generator comprises a control input for
20 adapting the frequency of generated pulses to a
frequency employed for said modulating signal which
is provided to said selection component.

9. A pulse modulator according to claim 1, wherein said
25 delay arrangement comprises a control input for
adjusting delays applied by said delay arrangement to
received pulses in accordance with a frequency
employed for said modulating signal which is provided
to said selection component.

30 10. A pulse modulator according to claim 4, further
comprising a clock signal generator for generating
said clock signal which is applied to said
synchronization input of said delay arrangement,

wherein said clock signal generator comprises a control input for adjusting the frequency of said clock signal in accordance with a frequency employed for a modulating signal which is provided to said selection component.

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11. A pulse modulator according to claim 1, further comprising a circuit for converting said pulse position modulated sequence of pulses output by said selection component into a corresponding pulse width modulated sequence of pulses.

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12. A modulating system comprising a pulse modulator, which pulse modulator includes:
a delay arrangement for receiving a first regular sequence of pulses and for delaying each received pulse several times to obtain a plurality of regular sequences of pulses having different phases; and
a selection component for receiving from said delay arrangement a plurality of regular sequences of pulses having different phases, for receiving a modulating signal, wherein each possible value of said modulating signal is associated to one of said different phases, for selecting for each pulse of said first regular sequence of pulses a pulse of the respective regular sequence of pulses which sequence of pulses has a phase associated to a current value of said modulating signal, and for outputting said selected pulse as part of a pulse position modulated sequence of pulses.

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13. A method of generating a modulated sequence of pulses, said method comprising the steps of:
generating a first regular sequence of pulses;

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5 delaying each of said generated pulses several
times to obtain a plurality of regular sequences of
pulses having different phases, wherein each possible
value of a provided modulating signal is associated
to one of said different phases;

 selecting for each pulse of said first regular
sequence of pulses a pulse of the respective regular
sequence of pulses which sequence of pulses has a
phase associated to a current value of said
10 modulating signal; and

 providing a respectively selected pulse as part
of a pulse position modulated sequence of pulses.

14. A method according to claim 13, wherein the delays
15 which are applied to said generated pulses are
synchronized by a clock signal.

15. A method according to claim 13, wherein said pulses
of said first regular sequence of pulses are
20 generated with a frequency which is equal to the
frequency with which values of said modulating signal
are provided.

16. A method according to claim 13, wherein said pulses
25 of said first regular sequence of pulses are
generated with a frequency which is adapted to a
frequency employed for said provided modulating
signal.

30 17. A method according to claim 13, wherein the delays
which are applied to said generated pulses are
adjusted in accordance with said frequency employed
for said provided modulating signal.

18. A method according to claim 14, wherein the frequency of said clock signal used for said synchronization is adjusted in accordance with a frequency employed for said provided modulating signal.

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19. A method according to claim 13, further comprising converting said provided pulse position modulated sequence of pulses into a corresponding pulse width modulated sequence of pulses.

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